

REMARKS

Claims 1-10 are pending in this application. By this Response, no claims have been amended, added or cancelled.

Rejection Under 35 U.S.C. § 103

In paragraphs 3 and 4 of the Office Action, the Examiner rejects Claims 1, 3-6, 9 and 10 under 35 U.S.C. § 103(a) as unpatentable over Tyler et al. (U.S. patent 5,920,278) in view of Smischny (U.S. patent 5,166,890). Applicant respectfully traverses this rejection as follows.

A. The Law of Obviousness

In order to establish a *prima facie* case of obviousness, three basic criteria must be met:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined), must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure." M.P.E.P. § 2142.

The combination of Tyler and Smischny suggested by the Examiner in the Office Action is to "measure errors in a pulse pair transmission after each pulse pair has been received as disclosed by Smischny in an ultra wideband communication system as described by Tyler to detect errors quicker."

Fundamentally, an ultra-wideband system as taught by Tyler does not employ a "pulse pair" type of transmission as taught by Smischny. Therefore, any mixing and matching of Tyler and Smischny will result in an inoperable combination. The two references are apples and oranges.

As cited by the Examiner, Smischny teaches the use of a bipolar bit stream (col. 1, lines 30-35). The Smischny reference is directed to a performance monitoring system in a digital data communication system such as a telephone system. As illustrated in FIG. 6, Smischny teaches a

performance monitoring circuit 50 that provides for the in-service monitoring of digital carrier facilities such as the various toll offices and repeater facilities that are serially linked together for the purpose of transmitting digital data via a telephone line modem from one location to another (col. 7, lines 38-42).

In contrast, Tyler teaches the use of a wireless broadband transmitter element 66 and a wireless broadband receiver element 68 as shown in FIG. 19. These wireless broadband elements, both receiver and transmitter, employ broadband technology to transmit and receive broadband signals. Tyler does not use a bipolar bit stream or a "pulse pair" type of transmission as taught by Smischny. Instead, Tyler employs a wireless broadband signal comprised 1 nanosecond duration pulses that have a bandwidth of about 1 gigahertz (col 9, lines 2-4).

The Tyler broadband signals are transmitted wirelessly.

Smischny analyzes signals that are transmitted through a telephone line.

A signal produced by Tyler has a bandwidth of about 1 gigahertz.

A signal analyzed by Smischny has a bandwidth of about 4 kilohertz (standard telephone signal bandwidth).

The system taught in Smischny cannot interface in any way with the system taught in Tyler, and therefore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references as suggested by the Examiner.

Therefore, there can be no reasonable expectation of success of a combination of Tyler and Smischny and thus a *prima facie* case of obviousness does not exist. Therefore, the obviousness rejection of independent claims 1, 5, 9 and 10 is respectfully traversed. Because claims 3-4 and 6 depend from either independent claim 1 or 5, it is respectfully submitted that

the rejection of these claims has been traversed by virtue of their dependency from either independent claim 1 or 5.

In paragraph 5 of the Office Action, the Examiner rejects claims 2, 7 and 8 as unpatentable under 35 USC §103(a) over Tyler, in view of Smischny, and further in view of Trotter (US Patent 5,862,141). Applicant respectfully traverses this rejection as follows.

Because claims 2, 7 and 8 depend from either independent claim 1 or 5, it is respectfully submitted that the rejection of these claims has been traversed by virtue of their dependency from either claim 1 or 5. M.P.E.P. §2143.03.

Conclusion

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-10 at an early date is solicited. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

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Respectfully submitted,

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